

## THAT WHICH IS CLAIMED IS:

1. A method for forming isolating structures in a silicon carbide layer (1,8), which method comprises the following steps:

- 5 depositing a masking layer (2) onto the silicon carbide layer (1,8); and
- forming openings (2a) through said masking layer (2) to expose portions of the silicon carbide layer (1,8); characterized in that it further comprises the steps of:
- 10       - ion implanting the whole chip surface;
- heat treating the entire surface of the silicon carbide layer (1,8) to form an oxide layer (4) having a first portion (5) with a first thickness in said at least one region (3), and having a second
- 15 portion (6) with a second thickness at said silicon carbide layer (1,8).

2. A method for forming isolating structures according to Claim 1, characterized in that it further comprises the step of:

- 5       - etching through said oxide layer (4) to form isolating regions (3A) in said first portion (5) of said oxide layer (4).

3. A method for forming isolating structures according to Claim 1, characterized in that said masking layer (2) is removed completely before said heat treatment step.

4. A method for forming isolating structures according to any of the preceding claims, characterized in that said implanting step comprises implanting heavy ions.

5. A method for forming isolating structures

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according to any of the preceding claims, characterized in that said implanting step comprises implanting dopant ions.

6. An isolating structure as obtained by the method of any of the previous claims.

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